

**Florida Keys National Marine Sanctuary  
Large Vessel Working Group  
Draft Minutes**

**Florida Keys Community College, Key West  
January 30, 2003**

**In Attendance**

Bob Smith – Facilitator, Florida Keys Community College, Key West  
Billy Causey – FKNMS Superintendent  
Fritz Wettstein – Co-Chair, FKNMS Lower Region Manager  
Nancy Klingener – Co-Chair, SAC and The Ocean Conservancy  
Capt. Don Kincaid – Co-Chair, SAC and Stars & Stripes  
Pete Keogh – Commercial Diver  
Capt. Nick Malinouski – Charter Boat Captain  
Peter Cone – Commercial Diver  
Michael Bailey – Coordinator, Recreational Fishing, NMFS  
Julio Avel – City Manager, City of Key West  
Raymond Archer – Port Director, City of Key West  
Fran Decker – Citizen-at-Large Middle Keys, SAC  
John Dolan-Heitlinger – Key West Chamber of Commerce  
Dr. Margaret Miller – Research Scientist, NMFS  
Joseph Mujwit, Environmental Compliance, Carnival Cruise Lines  
Lt. Robert Kamphaus – Assistant Lower Keys Region Manager  
Ginny Haller – The Key West Citizen  
Dr. V.R. Leeworthy – Economist, NOAA, Silver Spring, MD and FKNMS  
Duncan Mathewson – Submerged Cultural Resources, SAC  
Dr. Erich Mueller – Mote Marine Laboratory  
Robert F. Brown – Naval Research Laboratory, Key West  
Edward Lemieux – Naval Research Laboratory, Key West  
Capt. Richard Wells – Caribe Nautical  
Michele Paige – Representative, Florida-Caribbean Cruise Association  
Capt. Bruce Carnahan – Fishing Guide  
Prof. Michael Bruno – Stevens Institute of Technology, Hoboken, NJ  
Capt. Bob McGuire – Key West Bar Pilots Association  
Charles Yentsch – Oceanographer, Bigelow Laboratory  
Clarice Yentsch – Director of Education, Mel Fisher Maritime Museum  
Sandy Walters – Key West Bar Pilots  
Dan Probert – Port Advisory Authority  
Ron Demes – Business Manager, Key West NAS  
Prof. Kelly Rankin – Stevens Institute of Technology, Hoboken, NJ  
Richard Grathwohl – Marathon Guides Association, SAC  
Lt. Raymond Negron – Marine Environmental Protection, U.S. Coast Guard  
DeeVon Quirolo – REEF Relief  
Capt. Bob Elkins – Commercial Diver, Real Estate Agent  
Fiona Wilmot – Meeting Recorder, FKNMS

### **Presentations on the Economics of Large Ships in FKNMS**

Julio Avel, City of Key West, presented information on the importance of cruise ship revenues to the City's operations budget. City budget managers have estimated that other revenues such as property taxes would have to be increased as much as 22% to offset the loss of cruise ship revenues.

Bob Leeworthy, NOAA economist, presented economic data from a 1995-1996 Florida Keys recreation/tourism survey updated in 2000-2001 with Consumer Price Index data. His work showed a large economic contribution of cruise ship tourism to the Florida Keys, mostly confined to the City of Key West's downtown area. Each cruise ship passenger contributes about \$100 per day to the Key West economy, which with passenger numbers increasing from a little over 500,000 five years ago to almost a million today adds up to a nice pile of dineros. Also discussed was the increasing contribution of cruise ship tourism over the past several years, reflecting a changing post 9-11 Florida Keys tourism/recreation environment. The NOAA data did not include potential contributions by ship crews from cruise ships or Navy ships but noted the contribution of military personnel based in the Lower Keys. The presentations did include estimation of economic costs to the city or the sanctuary from large ship operations.

### **Presentation on Oceanographic Studies in Small and Large Harbors**

Drs. Michael Bruno and Kelly Rankin, both oceanographers with the Stevens Institute of Technology, presented work they have conducted assessing sediment conditions at Hyannis Port and in New York Harbor. Dr. Rankin presented an evaluation of the 2001 U.S. Army Corps of Engineers harbor survey. Techniques for monitoring Key West Harbor sediment conditions were also suggested.

The Hyannis Port study investigated causes and solutions of a problem with a large boat slip filling in with sediments. Docking maneuvers as an adjacent slip were identified as the cause of the siltation. Through simple modeling of oceanographic factors involved with sediment suspension and movement from turbulent forces exerted by the boat propellers, a solution was found. Modification of docking maneuvers into the one slip alleviated the siltation problem in the other. This problem bears similarities with the recent reconfiguration of the Pier B, or Hilton Docks, in Key West

The New York Harbor study of the movement of contaminated sediments involved more complex tidal, bathymetric and sediment conditions. It was presented as a model for research needed to determine the sources and fates of sediments affecting the marine environments of Key West Harbor and its approaches. The Navy's proposed Key West Harbor and Main Ship Channel dredging project was mentioned as a great opportunity to learn about water and sediment movements in the area.

### **Important Issues**

Bob Smith, Working Group Facilitator, gave a synopsis of the major points presented to and discussed by the Working Group:

- cruise ships and the Navy make a significant contribution to the local economy
- we are dealing with a great deal of scientific uncertainty concerning the complex turbidity issue
- scientific factors to be investigated regarding turbidity include: oceanographic data gathering; dredging depths and extent; sediment particle sizes; and the creation of good hydrodynamic models.

### **Recommendations for Discussion**

In closing, Superintendent Billy Causey outlined additional issues for consideration by the Working Group:

- 1) Economic cost of large vessels entering Key West Harbor
- 2) More turbidity data
- 3) Discharges
- 4) Cruise ship operations
- 5) Bar Pilot operations
- 6) Corps/Navy contractor update on the dredge project
- 7) Projected ship design of Cruiseline and large Navy ships using the port